

## **Notes for the Faculty Meeting – Wednesday 6<sup>th</sup> April, 2005 Graduate Curriculum**

First an apology for the lateness of these notes, it is a busy time of year and unfortunately this got delayed through various factors.

### **Background**

There was a directive from the Faculty meeting to the Curriculum committee to consider the Graduate Curriculum and return with some “strawman” proposals.

The practicalities of governance mean that we need to have any changes in requirements (numbers of courses, examinations, timing, etc.) ready by the start of a calendar year if they are to be approved at all levels of the University by September of the same year. So changes to requirements agreed now could only be made for September 2006.

Addition of courses to the calendar is a simpler matter and can be accomplished for September 2005 if we so agree in the very near future.

### **Discussion**

The main discussion in the Curriculum Committee has centred around the idea of introducing some new courses to provide a “leveling” function to account for the variety of training our incoming graduate students have received and to exploit the commonality of knowledge in the various groups.

Discussion has centred around four courses – which I have dubbed the “M” courses

Quantum Mechanics (QM)  
Electromagnetism (EM)  
Fluid Mechanics (FM)  
Statistical Mechanics (SM)

Since the titles of courses are a poor reflection of the content of the courses, draft curricula for these courses have been produced (see separate document).

These draft curricula are being used by the various groups to see how their course offerings would change if these courses were added to the curriculum.

### **Issues Arising**

It is clear that there are a number of issues that have arisen in the discussions which are currently unresolved. Some of them are:

Differing requirements of different groups in terms of course content, course timing and numbers of courses.

Differing abilities of incoming students. Some are very well prepared, some think that they are well prepared, and some know that they are not well-prepared. Providing appropriate advice and resources for all students – many of whom do not have a significant relationship with a supervisor - is an issue.

Timing of courses becomes extremely difficult if some students require an “M” course in the Fall and some don’t. When we start courses that require material in the “M” courses becomes a difficult issue.

### **What Hasn’t Been Done**

We never get as far as we hope to in these discussions and these are some of the significant items that have been identified as lacking at the moment.

There is still no clear understanding of the entire “package” of changes to the degree requirements. Without that, no final evaluation can be made.

Full consultation with faculty and graduate students. There have been an number of meetings – not to mention three reviews in the last three years – but there is certainly a need for some further consultation on directions.

Although we have draft curricula for the “M” courses, they are in the main too extensive and some work has to be done to make sure that these are reasonable 1-semester courses that are accessible to all our incoming students.

### **The Way Forward**

A fairly low-cost change to the curriculum would be to introduce the four “M” courses in the Fall of 2005 on the same basis as all the other courses. This would enable us to get some experience with teaching these courses while dealing with the other issues outlined above which will take more time to resolve.